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OM Protein - protein search, using sw model
Run on: July 18, 2001, 15:53:41 ; Search time 22.87 Seconds
(without alignments)

2025.218 Million cell updates/sec
Title: US-09-587-111-5
Perfect score: 4004

Sequence: 1 MTPSSSPVFRLETLDGGQE..... EDEDGASEENYVPVOLQSN 764
Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 412676 seqs, 60623988 residues
total number of hits satisfying chosen parameters: 412676

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100%
listing first 45 summaries

Database : A_Geneseq_0501:*

1 /SIDS8/gcdata/geneseq/geneseq/AA1980.DAT:*

2: /SIDS8/gcdata/geneseq/geneseq/AA1981.DAT:*

3: /SIDS8/gcdata/geneseq/geneseq/AA1983.DAT:*

4: /SIDS8/gcdata/geneseq/geneseq/AA1984.DAT:*

5: /SIDS8/gcdata/geneseq/geneseq/AA1985.DAT:*

6: /SIDS8/gcdata/geneseq/geneseq/AA1986.DAT:*

7: /SIDS8/gcdata/geneseq/geneseq/AA1987.DAT:*

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14: /SIDS8/gcdata/geneseq/geneseq/AA1994.DAT:*

15: /SIDS8/gcdata/geneseq/geneseq/AA1995.DAT:*

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17: /SIDS8/gcdata/geneseq/geneseq/AA1997.DAT:*

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21: /SIDS8/gcdata/geneseq/geneseq/AA2001.DAT:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

ALIGNMENTS

RESULT 1
ID AAY29469

ID AAY29469 standard; Protein: 764 AA.
AC AAY29469;
XX

DT 08-OCT-1999 (first entry)
XX

DE Human vanilloid receptor homologue VANILREP2.

XX Human; vanilloid receptor homologue; VANILREP2; polymorphic variant; PVP-1; therapy; diagnosis; chronic pain; neuropathic; postoperative; rheumatoid arthritis; neuralgia; algnesia; nerve injury; ischaemia; KW neurodegeneration; stroke; incontinence; inflammatory disorder.

XX Homo sapiens.

PN W09937765-A1.

PD 29-JUL-1999.

PF 25-JAN-1999; 99M0-EP0420.

XX

PR 20-JAN-1999; 99GB-0001209.

PR 27-JAN-1998; 98ED-0300549.

PR 26-OCT-1998; 98GB-0023421.

XX (SMIK) SMITHKLINE BEECHAM PLC.

XX Davis JJB, Duckworth DM, Hayes PD;

XX WPI: 1999-479049/40.

DR N-FSDB; AAZ07014.

XX

CC effect of endogenous neurotransmitters and hormones, and to inhibit graft
 CC rejection by promoting immunosuppression. Nucleotide sequences encoding
 CC hvrcc are also useful for chromosome localisation.
 XX Sequence 763 AA;

Db 601 fktftqmgelafqeqhifgmvillayllyillmliaimsetvnsvaldsww 660
 Qy 661 KLOKAIISVLEMENGYWWCRKKQRAGVMLTVGKPGSPDRWCRRVEVWASWQTLPT 720
 Db 661 klpkaisvlmenywwcrkkqragsmtvtgkpgspdrwcrrvevwnaswqtlpt 720
 Qy 721 LCEDPSGAGVPTLNPVLAASPKEDEDGASEENYVVPOLLQSN 764
 Db 721 lcedpsgagvptlenpvlaspkdedgaseenyvpqlqsn 764
 RESULT 5
 AAY42308 XX
 ID AAY42308 standard; Protein; 763 AA.
 XX
 AC AAY42308;
 XX
 DT 06-DEC-1999 (first entry)
 DE Human vanilloid receptor-like cation channel (hvrcc).
 XX
 KW Vanilloid; capsaicin; neuron; selective; calcium; cation; receptor; pain; inflammation; brain disease; cancer; autoimmune disorder.
 XX
 OS Homo sapiens.
 FH Key Location/Qualifiers
 FT Misc-difference 5
 FT /note= "Optionally there is an insertion of a Gln residue
 FT in an allelic variant"
 FT
 XX
 PN W0946377-A2.
 XX
 PD 16-SEP-1999.
 FT
 FF 10-MAR-1999; 99WO-EP01550.
 XX
 PR 11-MAR-1998; 98EP-0400565.
 XX
 PA (SNFI) SANOFI-SYNTHELABO.
 XX
 PI Partiseti M, Renard S;
 XX
 DR WPI: 1999-571722/48.
 DR N-PDB: AAZ42308.
 XX
 PT New receptor-like channel polypeptide and polynucleotide useful for
 PT prevention and treatment of cancer, autoimmune disease, brain disease
 PT and ulcers
 XX
 PS Claim 12; Page 15; 50PP; English.
 XX
 CC This sequence represents a human vanilloid receptor-like cation channel
 CC (hvrcc). This channel is activated by vanilloids such as capsaicin
 CC and resiniferatoxin, and is expressed in a variety of tissues,
 CC particularly in nervous tissue such as the amygdala, substantia nigra,
 CC thalamus, dorsal root ganglia and spinal cord. Vanilloids are natural
 CC compounds which are known to trigger cation permeability in the
 CC peripheral neurons involved in transmission of noxious stimuli (e.g.,
 CC vanilloid-gated cation channel, which is highly expressed in dorsal root
 CC ganglia, has six putative transmembrane domains, giving it significant
 CC structural homology with "store-operated" calcium channels, and is highly
 CC selective for calcium ions. hvrcc and nucleotides encoding it can be used
 CC in prevention, diagnosis or therapy of disorders that may be associated
 CC with an excess or deficiency of hvrcc. Disorders detected or treated
 CC using hvrcc proteins, nucleotides or antagonists include chronic
 CC inflammation, acute and chronic pain, brain diseases, abnormal
 CC proliferation and cancer, ulcers, autoimmune diseases, control of viscera
 CC innervated by the dorsal root ganglia neurons, to mimic or antagonise

CC effect of endogenous neurotransmitters and hormones, and to inhibit graft
 CC rejection by promoting immunosuppression. Nucleotide sequences encoding
 CC hvrcc are also useful for chromosome localisation.
 XX Sequence 763 AA;

Db 1 MTSDPSSSPVPRLETDGGQEDGSEADRGKUDFGSCUPLPMSQFOCEDRFAPOIRVNLN 50
 Qy 121 MKAVINLKDGVNACILPLQIDRDSGNPQDPLVNAQCTDDYRGHSALHNAEKRSIQCVR 180
 Db 121 mkaivinlkdgvnacilplqidrsqgnqplvnaqctddyrghsalhnaekrsiqcvr 180
 Qy 181 DLVENGANVIRACACRFQKOGTGFYFGLPLSIACTKQDWVSYLLENPHPASLQ 240
 Db 181 lvenganvharacgrffqkqgtcfyfylgplslaactkqdwvsvylenphpaslq 240
 Qy 241 TDQSGNTVYLHLYMWSNDNSAENIALVTSWMDGCLQAGARICPTQLEDRINLQDTPKL 300
 Db 241 tdsqntvylhlymwsndnsaenialvtswmdgclqagaricptqledrindtpkl 300
 Qy 301 AKEGKIEFRRHLOREFSGHSLSRKFTEWYCYPVRVSLYDASVDSCEENSVLEIAF 360
 Db 301 akegkiefrrhlorefsghslsrkftewycypvrsvlydasydceensvleiaf 360
 Qy 361 HCKSPHRHRMVYLEPLNKLQAKWLLIPKLFPLFLNLTCLNLYMFETAVAHQPTLKQAA 420
 Db 361 hcksphrhrmvyleplnklikakwllipkflnfncnllymfetavahqptlkqaa 419
 Qy 421 PHLKAEVGNSMNLRGHTLILGGIYLWGLWYFWRHRHVTWISITDSEELFLQALL 480
 Db 420 phlkaevgnsmlrghtlilggiylwglwyfwrhrhvtwisiitdseelflqall 479
 Qy 481 TWSQVLCFIALEWWLPLLYSVALVIGWNLNLYTRGFOHTGYSWMIQVILDRDLRFL 540
 Db 480 tvvsvqvlcfialewylpllysalvlgwllytrgfohtgyswmiqvildrlfl 539
 Qy 541 YLVLFEGFVALVMSLUSOEWRPEATPTGRWATESTOPMBEGQEDSGNAGDVRGIEASLEL 600
 Db 540 lylvfegfavalvmslusewrpeatptgrwatestopmbegqedsgnagdvrgieaslel 599
 Qy 601 FKFTGMGELAQEQDLHFRGMWLLLAVLTYILNNMLALMSETVNSVADSW 660
 Db 600 fkftqmgelaqeqdlhfmwlllavltyilnnmlalmsetvnsvaldsww 659
 Qy 661 KLOKAIISVLEMENGYWWCRKKQRAGVMLTVGKPGSPDRWCRRVEVWASWQTLPT 720
 Db 660 klpkaisvlmenywwcrkkqragsmtvtgkpgspdrwcrrvevwnaswqtlpt 719
 Qy 721 LCEDPSGAGVPTLNPVLAASPKEDEDGASEENYVVPOLLQSN 764
 Db 720 lcedpsgagvptlenpvlaspkdedgaseenyvpqlqsn 764
 RESULT 6
 AAY2471 XX
 ID AAY2471 standard; Protein; 763 AA.
 AC AAY2471;
 XX
 DT 08-OCT-1999 (first entry)
 XX
 DE Human vanilloid receptor homologue VANLREP2 polymorphic variant PVP-1.

XX
 KW Human; vanilloid receptor homologue; VANILREP2; polymorphic variant;
 KW PVP-1; therapy; diagnosis; chronic pain; neuropathic; postoperative;
 KW rheumatoid arthritis; neuralgia; algesia; nerve injury; ischaemia;
 KW neurodegeneration; stroke; incontinence; inflammatory disorder.
 OS Homo sapiens.
 XX
 PN WO9937765-A1.
 XX
 PD 29-JUL-1999.
 XX
 PF 25-JAN-1999; 99WO-EP00420.
 XX
 PR 20-JAN-1999; 99GB-0001209.
 PR 27-JAN-1998; 98EP-0300549.
 PR 26-OCT-1998; 98GB-0023421.
 XX
 PA (SMIK) SMITHKLINE BEECHAM PLC.
 PI Davis JB, Duckworth DM, Hayes PD;
 XX
 DR WPI; 1999-479049/40.
 XX
 DR N-PSDB; A4207116.

PT New human vanilloid receptor homologues (VANILREP2)
 PT XX
 PS Claim 4; Page 35-37; 47pp; English.
 XX
 CC The present sequence represents a human vanilloid receptor homologue
 VANILREP2 polymorphic variant PVP-1. VANILREP2 can be used to diagnose
 disease or susceptibility to disease related to expression or activity
 of VANILREP2 polypeptides. VANILREP2 may be used to treat diseases
 including pain, (for example chronic, neuropathic, postoperative,
 rheumatoid arthritic), neuralgia, algesia, nerve injury, ischaemia,
 neurodegeneration, stroke, incontinence, and inflammatory disorders.
 XX
 Sequence 763 AA;

Query Match 99.6%; Score 3988.5; DB 20; Length 763;
 Best Local Similarity 99.9%; Pred. No. 0; Mismatches 0; Indels 1; Gaps 1;
 Matches 763; Conservative 0; Pairs 0; Gaps 1;

QY 1 MTSPPSSPVVRLETPLDGQGQEDGSEADRKGKDFGSSLPPMSEQFGEDRKPAQTRVNLN 60
 Db 1 mtspsspvvrlletpldgqgqedgseadrkgkdfgsslppmseqfgedrkpaqtrvnl 60
 QY 61 RKGTSASQPDNRDRDRNAVSVQPVEDAGLAEVYLSKSYLTDSETEGSGKTC 120
 Db 61 rkgtasqpdnfrdrdrnavsvqvpedaglapeylsksyldseftegsgktc 120
 QY 121 MKAVNLKDGYNACTPLQLIDRSGNQPNQPLVNACTDDYRGHSAHLHATEKSLQCVK 180
 Db 121 mkavnlnkdgynactplqlidrsgnqpnqlvnaactddyrghsaahlhatekslcv 180
 QY 181 LIVENGANVHARACCRPFQKGQGTCFFGELPLSLACTKQWDVSYLLENPHOPASLQA 240
 Db 181 llvevganvharcrcrfqkqgtcfyfgelplslactkqwdvsvylenphopasla 240
 QY 241 TDSQSMVVLHALVMDSNSAENIAVTSMDFLQAGARICPTVQLEDRNLQDITPLKL 300
 Db 241 tdsqsmvvlhalvmdnsaenialvtmfdqfslqgagrcptvqledrnlqditplkl 300
 QY 301 AAKEKSKIEIRHILQREFSGLSHSRKEFWCYGVRVSLYPLASVDSCEENSVEILIAF 360
 Db 301 aakekskieirhiliqrefsglshsrkftcwypprvslyplasvdsceensveilaf 360
 QY 361 HCKSPHRHRMVLPEFLNKLQAKWDLIPKFLNFCNLNTYMFETAVAYHQPTIKQQA 420
 Db 361 hcksphrhrmvleplnkliqakwdlipkflnclnlymfatvayhqptik-aa 419
 QY 421 PHLKAEVGNMSMLLTHILILGGIYLLVGQWYFWRRHVFIWISFIDSYEILEFLFQALL 480

XX
 RESULT 7
 AAY84834 AAY84834 standard; Protein; 764 AA.
 XX
 ID AAY84834;
 XX
 AC AAY84834;
 XX
 DT 08-AUG-2000. (first entry)
 XX
 DE Amino acid sequence of a vanilloid receptor-like (VR-L) protein.
 XX
 KW Cation channel protein; vanilloid receptor-like 1 protein; VR-L;
 KW noxious heat; pain; inflammation; tissue damage; nociception;
 KW gene therapy; sensory neuron; immune system; analgesic;
 KW immunomodulatory;
 KW neuromodulatory.
 XX
 OS Homo sapiens.
 XX
 PH Key Location/Qualifiers
 PT Misc-difference 149
 PT /note= "Gly encoded by CAG"
 PT Region 162..193
 PT /note= "ankyrin-like repeat"
 PT Misc-difference 200
 PT /note= "Lys encoded by AAT"
 PT Region 208..240
 PT /note= "ankyrin-like repeat"
 PT Region 293..323
 PT /note= "ankyrin-like repeat"
 PT Domain 391..410
 PT /note= "transmembrane domain 1"
 PT Domain 438..453
 PT /note= "transmembrane domain 2"
 PT Domain 468..489
 PT /note= "transmembrane domain 3"
 PT Domain 501..527
 PT /note= "transmembrane domain 4"
 PT Domain 535..554
 PT /note= "transmembrane domain 5"
 PT Misc-difference 560
 PT /note= "Thr encoded by GCT"
 PT Region 587..608
 PT /note= "possible pore loop"
 PT Domain 619..645
 PT /note= "transmembrane domain 6"
 PT Misc-difference 667
 PT /note= "unspecified amino acid encoded by TNT"
 XX
 PN WO200022121-A2.

QY 481 IVVSQVLCFALAEVYLPKLVSLAUGWMLYTRGFGTIGISVWMIQWILRDLFL 540
 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
 Db 481 tvvslvlfclvviewlpvlsvsalvgwlnlyytrgfgtqgylsvmqkvldmfv 540
 ||| 541 IYLVPLFGRFVALVLSLQBWRPEAPTGSNTESVOPMGMQEDBNGNGACYRGILEASL 600
 ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
 ||| 541 iyvrlfgravalvsldgtrwrbeaptgpnatesvqphqeqgqgedgngaqyrgileasle 600
 ||| FKTIGMELAFQEQBLHRGMVULLAYLVLTYLMLMIALMSEVNSVATDSWSW 660
 ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
 ||| 601 fktfligngelafqeqlhfrgmvillaylvtlyllmlialmsetvnsvatdsww 660
 ||| 661 KLOKAIISLMEYNYWCKRKQRAQVMLVNGTKDGSPEWRCCRVEENWASWEQTLT 720
 ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
 ||| 661 klgkaixllementgywckkqzqragmltvgtkpdgspewrccrveenwasswqtlp 720
 ||| Db 721 LCDDPGSGAVPRTLENPVASPRDEDCASEEENYVPPQQLQSN 764
 ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
 ||| 721 Icedpsgagvprtlenpviasppkdedgaseenyyvpvqlqsn 764
 |||

RESULT	8
--------	---

AAV97364 standard: Protein: 630 AA.

ID AAV97364

AC AAV97364;

XX

XX 14-SEP-2000 (first entry)

DE Human VR-2 (alternate form) protein.

XX VR-2; human; vanilloid receptor; nociceptor; pain signalling; hyperalgesia; musculoskeletal disorder; neuropathic pain; chromosome 17p11-12; gene therapy.

XX OS Homo sapiens.

XX PN WO200029577-A1.

XX

PD 25-MAY-2000.

XX

PF 12-NOV-1999; 99W0-US26701.

PR 13-NOV-1998; 98US-0108322.

PR 20-DEC-1998; 98US-0114078.

PR 26-FEB-1999; 99US-0258633.

PR 19-OCT-1999; 99US-0421134.

XX PA (MILL-) MILLENNIUM PHARM INC.

XX PT Curtis RAJ;

XX DR WPI; 2000-387790/3.

XX DR N/P SDB; AAA02255.

PR New capsaicin/vanilloid receptor Polynucleotides and polypeptides, used to modulate pain signalling mechanisms

XX

PS Example 1; Fig 16; 183pp; English.

XX

CC The present sequence is the protein sequence for an alternate form of human capsaicin/vanilloid receptor VR-2, which is involved in pain signalling. The coding sequence was isolated by searching a heart cDNA library for genes encoding novel receptors of the capsaicin/vanilloid family, and has been shown to be located at chromosome 17p11-12. This region has been associated with myasthenia gravis, Smith-Magenis syndrome, CORD5 Cone-rod dystrophy, Choroidal dystrophy, central areolar and retinal cone dystrophy, and it is possible that the protein may be used to treat or diagnose these disorders. In addition, the gene, protein and its antibodies can be used to diagnose and treat hyperalgesia, inflammation, infection, ischaemia, Joint pain, tooth pain, headaches, pain associated with surgery or neuropathic pain,

CC

CC	possibly via the use of gene therapy.
XX	
SQ	Sequence 630 AA;
Query Match	81.4%; Score 3258; DB 21; Length 630;
Best Local Similarity	82.5%; Pred. No. 2e-301; Mismatches 0; Indels 134; Gaps 1;
Matches	630; Conservative 0; Mismatches 0; Indels 134; Gaps 1;
QY	1 MTSPSSSPVERLETIDGGQEDGEADRCKIDFGSGLPPMESQFGDRKFAQPIRVLNY 60
Db	1 mtspsssppverletidggqedgeadrckidfgsllppmesqfgdrkfaqpirvlny 60
QY	61 RKGIGASQPPNRDRDRLENAVSRGVPEPLSKTSKILTDSEYTEGSTGKTCI 120
Db	61 rkgigasqppnrdrdrlefnasqgypedlagippeylsktskildsyeatgkcti 120
QY	121 MKAVNLKDCVNACTIPLQIDRSQGNPQLVNACTDDYRGISALHTAIKEKSLQCV 180
Db	121 mkavnlnkdcvnactiplqidrsqgnpqlvnactddyrgisalhtaikekslqcv 180
QY	181 LLVENGANVIAVARACCRFFGKQGCRFYFGELPLSLACTKOWDVSYLVLENPHOPASQ 240
Db	181 llvenganvianvaraccrffgkqgcrfyfgelplslactkowdvsylvlenphopasq 240
QY	241 TDSQGNTVHLALVMSDNSAENIALVTSMGDLIAGARLCPVQLEDTRNLQDTPKL 300
Db	241 tdsqgntvhalvmlnsaenialvtsmgdliaqarlcptwqledtrnlqdtplki 300
QY	301 AAKEKEKIEFRHILQREFSGLSHSRKFTEWYGVRSVSYLDLASVDSCEENSVELIAF 360
Db	301 aakekekiefrhilqrefsglshsrkftewygvrsyldasvdsceensveliaf 360
QY	361 HCKSHHRHRMVKYLEPLNLKLUQAKNDLILPEFLNLTCLNLYMFTTAVAHQPTIKQA 420
Db	361 hckshhrhrmkyleplnlkluqakndlilpeflnltytavahqptikqa 420
QY	421 PHLKKEVGNSMLLTGHILIGTIVLQOLWYFRRHYFIWTSFIDSFEILEFOALL 480
Db	421 phlkkevgnsmlltghiligtgivlqolwiyfrrhyfiwtsfidsfeilefoall 480
QY	481 TWSYVLCFLAIIEWLPLLYSALVIGLWNLYYTFQFHQHGIYSWMIQVKILRDILRFL 540
Db	481 twsyvlcflaiiewlpllysalviglwnlyytfqfhqgismiq----- 529
QY	541 IYLVFLFGFAVALVLSQEAWRPEAPTGPNATESVQPMEGOEDENGQAQYRGILEASLE 600
Db	530 ----- 529
QY	601 FKFTIGMELAFOEQLHFRGMWLLLLAVVLLTVILLNMLIALMSETVNSVATDSWSW 660
Db	530 ----- 529
QY	661 KLOKAKISVLEMENYWWCRKQKQAGVMLTVGKPGSPDPRWCFRVEEVWASHEQTLPT 720
Db	530 ---kaisvlemenywwcrkqkqagvmltvgkpgspderwcfrveevwasheqtlpt 586
QY	721 LCEPDGSGAGVPTLENVPLASPPKDEDGASEENVNPVQQLQSN 764
Db	587 lcedpsgagvptlenvplasppkdedeasenenvpvgqlqn 630
RESULT	9
AY06556	standard; Protein: 761 AA.
XX	
AC	AY06556;
XX	08-OCT-1999 (first entry)
DE	Rat vanilloid receptor-related polypeptide 1 (VRRP-1).
XX	Vanilloid receptor-related polypeptide 1; VRPP-1; VR2;
KW	capsaicin receptor; VR1; rat; vanilloid; analgesic; pain; inflammation; therapy; diagnosis.
XX	
OS	Rattus rattus.
XX	W0997675-A1.
XX	29-JUL-1999.
PD	
XX	22-JAN-1999; 99WO-US01418.
PF	
XX	22-JAN-1998; 98US-0072151.
PR	
XX	(REGC) UNIV CALIFORNIA.
PI	Brake AJ, Caterina M, Julius DJ;
XX	WPI; 1999-469113/39.
DR	N-PSDB; AAY87478.
XX	New isolated capsaicin receptor polypeptide and related nucleic acid
PT	- useful for detecting vanilloid compounds, identifying modulators,
PT	and in diagnosis or treatment of e.g. pain and inflammation
XX	
PS	Claim 4; Page 81-83; 120pp; English.
XX	The present sequence represents rat vanilloid receptor-related
CC	polypeptide 1 (VRP-1 or VR2), as deduced from a cDNA clone (see
CC	AX87478) isolated from a rat brain cDNA library. VRP-1 is an
CC	example of a capsaicin receptor-related polypeptide of the
CC	invention. It is not activated by capsaicin or heat, but may
CC	interact with the novel capsaicin receptor VR1 (see AAY06555). It
CC	shows 49% identity with rat VR1. The invention provides vanilloid
CC	receptor polypeptides and polynucleotides, including capsaicin
CC	receptor-related polypeptides and polynucleotides as well as
CC	expression vectors, host cells and transgenic animals. It also
CC	provides a method of using such receptors to identify vanilloid
CC	compounds in natural products or to screen candidate compounds that
CC	modulate capsaicin receptor function for use as analgesics (vanilloid
CC	analgesics, therapeutic antibodies, antisense oligonucleotides,
CC	capsaicin receptor-encoding polynucleotides for gene therapy),
CC	flavour-enhancing agents, etc. Capsaicin receptor-related
CC	polypeptides and specific antibodies can also be used for the
CC	diagnosis and treatment of human disease and pain.
XX	
SQ	Sequence 761 AA;
Query Match	76.2%; Score 3051.5; DB 20; Length 761;
Best Local Similarity	77.7%; Pred. No. 1.3e-281;
Matches	598; Conservative 62; Mismatches 93; Indels 17; Gaps 7;
QY	1 MTSPSSSPVERLETIDGGQEDGEADRCKIDFGSGLPPMESQFGDRKFAQPIRVLNY 60
Db	1 mtsassppairletsdsgdeegnaevnkgkqe---pppimespfqdrnsspqkvlnf 56
QY	61 ---RKGIGA-SQPPNRDRDRLENAVSRGVPEPLSKTSKILTDSEYTEGST 115
Db	57 ikrpptntspsqqpdrdrifsvsrgpeeltgileylwnskyltsayest 116
QY	116 GKTCLMKAVNLKDCVNACTIPLQIDRSQGNPQLVNACTDDYRGISALHTAIKEKS 175
Db	117 qkctcimkavnlkdcvnactiplqidrsqgnpqlvnactddyrgisalhtaikeks 176
QY	176 LQCVKILVENGANYHARAGGRFFGKQGCRFYFGELPLSLACTKOWDVSYLVLENPH 235
Db	177 lqcvkivilvengadvhrlracgrffgkqgcrfyfgelplslactkqwdvvtlylenph 236
QY	236 ASLQATDSQNTVHLALVMSDNSAENIALVTSMGDLIAGARLCPVQLEDTRNLQD 295
Db	237 asleatdsigntvhalvmlnsaenialvtsmgdliaqarlcptwqleelshnqgl 296
QY	296 TPLKLAKEKIEFRHILQREFSG-LSHLSRKFTEWYGVRSVSYLDASVDSCEENS 354

RESULT 11
 AAY06560
 ID AAY06560 standard; Protein: 727 AA.
 XX
 AC AAY06560;
 XX
 DT 08-OCT-1999 (first entry)
 DE Human vanilloid receptor-related polypeptide 1 (VRP-1).
 KW Vanilloid receptor-related polypeptide 1; VRP-1; VR2;
 KW capsaicin receptor; VRL; human; vanilloid; analgesic; pain;
 KW inflammation; therapy; diagnosis.
 XX
 OS Homo sapiens.
 XX
 FH Location/Qualifiers
 FT Misc-difference 194..208
 FT /note= "unidentified residues"
 FT Misc-difference 308
 FT /note= "unidentified residue"
 FT Misc-difference 311
 FT /note= "unidentified residue"
 FT Misc-difference 343..368
 FT /note= "unidentified residues"
 FT Misc-difference 404
 FT /note= "unidentified residue"
 FT Misc-difference 460..474
 FT /note= "unidentified residues"
 FT Misc-difference 558
 FT /note= "unidentified residue"
 FT Misc-difference 608
 FT /note= "unidentified residue"
 PN WO937675.A1.
 XX
 PD 29-JUL-1999.
 XX
 PF 22-JAN-1999; 99WO-US01418.
 XX
 PR 22-JAN-1998; 98US-0072151.
 XX
 PA (RECG) UNIV CALIFORNIA.
 XX
 PI Brake AJ, Caterina M, Julius DJ;
 XX
 DR WPI; 1999-469113/39.
 XX
 PT New isolated capsaicin receptor polypeptide and related nucleic acid
 PT - useful for detecting vanilloid compounds, identifying modulators,
 PT and in diagnosis or treatment of e.g. pain and inflammation
 XX
 PS Claim 4; Page 91-93; 120Pp; English.
 XX
 CC The present, claimed sequence represents a human vanilloid receptor-
 CC related polypeptide 1 (VRP-1 or VR2) sequence predicted from
 CC available ESI sequences (see WO937675.A1). VRP-1 (see also AAY06558)
 CC is an example of a capsaicin receptor-related polypeptide of the
 CC invention. It is not activated by capsaicin or heat, but may
 CC interact with the novel capsaicin receptor VRL (see AAY06558). The
 CC invention provides capsaicin receptor and capsaicin receptor-
 CC related polypeptides and polynucleotides, as well as expression
 CC vectors, host cells and transgenic animals. It also provides a
 CC method of using such receptors to identify vanilloid compounds in
 CC natural products or to screen candidate compounds that modulate
 CC capsaicin receptor function for use as analgesics (vanilloid
 CC analogues, therapeutic antibodies, antisense oligonucleotides,
 CC capsaicin receptor-encoding polynucleotides for gene therapy),
 CC flavour enhancing agents, etc. Capsaicin receptor-related
 CC polypeptides and specific antibodies can also be used for the
 CC diagnosis and treatment of human disease and pain.
 XX
 SQ Sequence 727 AA;

Query Match 75.8%; Score 3036.5; DB 20; Length 727;
 Best Local Similarity 79.1%; Pred. No. 3.1e-280;
 Matches 620; Conservative 5; Mismatches 82; Indels 77; Gaps 10;
 Matches 620; Conservative 5; Mismatches 82; Indels 77; Gaps 10;

QY 1 MTPSPSSPVVRLETLDGCGQEDGSEADRCKLDFGSGCLPPMSEQFOGDRKFAPQIRVNLN 60
 DB 1 mtpsspvfvetldgggedseadrgkldfsgqipnesqfqgedrktapqirvnly 60

QY 61 RKGIGASQPDENRFDRLFNAVASRGVPEDLAGPEYLSTSKEYLTDSETEGSTGKTL 120
 DB 61 rkgtgasqpdpprfdrlfnaflavsvrgvpedlagpeylstskeyltdseftegstgkcl 120

QY 121 MKAVINLKDGVNACTILPLIQLIDRDSGNPOTLVAQCTDDYRGHSALHATEKSLQCVK 180
 DB 121 mkaivnlkdgvnacilpliqlidrdsgnpdpvnadactkddyyrghsalhalekrlsqcvk 180

QY 181 LLVENGANVHARACGRFFQKGQTCFYGFLPLSLAECTKQWDVSYLLENPHQASLQ 240
 DB 181 llvenganvjaraxx 240

QY 241 TDSQGNTVHLALVMTSNSAENIAVTSMDGLQGARICPTQLEDIRNQDITPLKL 300
 DB 241 tdsqgntvhlalvmisdnseanialvtstnqdgilqagaricptqledirnqdltpkl 300

QY 301 AKEESKIEIFRHIL-ORESGLS-HLSRKTE-WCYGPPVRSIYDLASVDSCEENSVLE 356
 DB 301 aakegkixifxhilaaskgksglkppfrkptewwlmqprvxxxxxxxxxxxxxxxxxxxxx 360

QY 357 1IAFHCKSPHRHRMVTLEPINKLQAKWDLIPKFLPFLNLYMFITAVYHQPTK 416
 DB 361 xxxxxxxxxpghrhrmvlqkwlplkflinlxymfittavayhqptk 420

QY 417 KQAPHLKAEGVNSMVLTGILILGIGIYLGVQIWFWR-----HVF 460
 DB 421 kqaaplhkaegvnsmltgililggiylgvqkfwxxxxxxxxxxxxxxxxxxxxfpgh-- 478

QY 461 TWISFTDSYFELFLFQALLTIVVSOVLCFLAIEWLPLLVSVLWVGNLNLYYTRGFQHT 520
 DB 479 -----rwpapacyca--gaglaepalytwl----pahrh 509

QY 521 GIYSMIIQKVLRLDLRFLYLVLFGFRAWVLYLSQSRWRPAPPTGNTAEVQPMG 580
 DB 510 qchd-----pealvlsqd-wrpeaptgmuatqesvqpmeg 543

QY 581 QDEDEGNAQYRIGLEASLELFKFTIGMGEAFQEOHLFRQMWLLVLLAVLUTILLNM 640
 DB 544 qdedegnaqyrgixaslelfkftigmgelafqeqlhfrgmwlllalaytillnm 603

QY 641 LIAMSETVNSVATDSWSLWRLQKALSVIEMENGWMCRKQRAGVMLTVGTKDGSPDE 700
 DB 604 liaiksetvnsvaldswsliwlqlkaisvlemeengywccrkqragsmltgkpdgspe 663

QY 701 RWCFCFVEEVWVWASWOTLPTCEPSSGAVPTLENPVLASPPKEDDASEEENYVPL 760
 DB 664 rwcfrveevnwwaswqiptcedpsgagvptlenpviasppkdedgasseenyvpl 723

QY 761 LQSN 764
 DB 724 lqsn 727

RESULT 12
 AAW99798
 ID AAW99798 standard; Protein: 727 AA.
 XX
 AC AAW99798;
 XX
 DT 16-JUN-1999 (first entry)
 XX
 DE Human VRP-1 (VR2) capsaicin receptor.

The present sequence is the partial sequence for an alternate form of human capsaicin/vanilloid receptor VR-2, which is involved in pain signalling. The coding sequence was isolated by searching a heart cDNA library for genes encoding novel receptors of the capsaicin/vanilloid family, and has been shown to be located at chromosome 17p11-12. This region has been associated with myasthenia gravis, Smith-Magenis syndrome, CORDS, Cone-rod dystrophy, choroidal dystrophy, central areolar and retinal cone dystrophy, and it is possible that the protein may be used to treat or diagnose these disorders. In addition, the gene, protein and its antibodies can be used to diagnose and treat hyperalgesia, inflammation, infection, ischaemia, joint pain, tooth pain, headaches, pain associated with surgery or neuropathic pain, possibly via the use of gene therapy.

SO	Sequence	436 AA:
Query Match		55.9%; Score 2240; DB 21; Length 436;
Best Local Similarity		76.5%; Pred: No. 1; e-204; 0; Mismatches 134; Gaps 1;
Matches 436; Conservative		0; Indels 134; Gaps 1;
OY	195	GREFQKQGTCYFGEPLSLIACTKQWDVSYLLENPHQPAQLDSSQNTVLHALW 254
Db	1	grrfqkqggtcifygeplslaactkqwdvvsylienphqpaqlqatsqntvlhalw 60
OY	255	ISDNAEALTYSTMQDGLQAGARLCPTEQVQLEDIRNQDPLKLAKEKGKTEIFRHL 314
Db	61	isdnasaalvtsmydgl1qagarcifcpltpqvdirlqdltpklaakekgkiefrhil 120
OY	315	QREFSGLSHLRSKFTENCGYPVRSVLVDASDSCCEENSVLETLIAFHCKSPHHRMVLE 374
Db	121	qrefsglshlskftevcygpvrsylasladsceensvleliafhckspfhhrmvle 180
OY	375	PINKLQAKWDLIIPKFLNFLCNLTMIFTAVAYHOPTLKQAAPIHKAEGVNSMLT 434
Db	181	pinklqakwdlilpkfifnfcnllymifftavayhqptlkqaaaphikaevgnsmilt 240
OY	435	GHILILGGTIVLWGOLWFMWRHVFWSFDSYFEFLFQALITYWSQVICFLATE 494
Db	241	ghili1gg1y1lwgq1wyfwrhvhfiwifsdysfe1flifqalltvsgvqflaew 300
OY	495	YPLPLVSALVGLWLNLIYXTRFOHQHIGTYSVMIQVKVILRDLRFLLIYLVFLFGFAVALV 554
Db	301	yplplvsalvglwlnlyytrfghqriyvsmi1qk----- 335
OY	555	SLSQEAWRPEAPTGPNATESVOPMEQEDEGNGAQYRGILEASLELFKFTIGMELAFOE 614
Db	336	----- 335
OY	615	QLFHFRGVVLLLLAYVLLTYYLILNMLIALMSETVNSVATDSWSIWKLQKATSYLEMNG 674
Db	336	----- 336
		kalysvlemeng 346
OY	675	YWMCRKKQRAYGMLTYGTKPDGSPDERWCERVEEVNNAASWEOCPLPTCEDPSGAGVPLT 734
Db	347	ywmcrkkqragymtvgtkpdgspderwcfrveevnwaswediapticedpsgagvplt 406
OY	735	ENPVLAASPPKEDDEGASEEENVYVQQLQSN 764
Db	407	enpvlaasppkdedgaseenypvqlqsn 436
RESULT	14	
ID	AY97360	AY97360 standard; Protein: 554 AA.
AC	AAV97360;	
XX		
DT	05-SEP-2000	(first entry)
XX		
DE		Rat partial VR-2 protein.
XX		
VR-2;	rat; vanilloid receptor; nociceptor; pain signalling;	
XX		
KW		

Thu Oct 18 15:25:08 2001

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